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| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|-------------|----------------------|---------------------|------------------|
| 09/921,641                      | 08/03/2001  | Remi LeReverend      | MITEL.005A          | 5832             |
| 20995                           | 7590        | 04/22/2004           | EXAMINER            |                  |
| KNOBBE MARTENS OLSON & BEAR LLP |             |                      | LE, HUYEN D         |                  |
| 2040 MAIN STREET                |             |                      | ART UNIT            |                  |
| FOURTEENTH FLOOR                |             |                      | PAPER NUMBER        |                  |
| IRVINE, CA 92614                |             |                      | 2643                |                  |

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/921,641

Applicant(s)

LEREVEREND, REMI

Examiner

HUYEN D. LE

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-15 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2643

### DETAILED ACTION

1. The indicated allowability of claims 1-11 is withdrawn in view of the newly discovered reference(s) to Hoover (U.S. patent 3,926,159). Rejections based on the newly cited reference(s) follow.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killion (U.S. patent 6,320,969) in view of Hoover (U.S. 3,924,159).

Regarding claims 1-2, 7, 8, 10, and 12-14, Killion teaches a hearing aid which comprises an audio amplifier (14), a microphone (13), a speaker (15), a battery (11) and a method for detecting low battery output voltage (figures 1, 1A and 3). The method comprises sensing a low battery voltage (21, 21A, 31) and substantially disabling the audio amplifier (see col. 6, lines 4-15, figure 3 and see the on-off switch 12 for the manual shut off of the alarm).

Killion does not teach that the circuit or method for substantially disabling the audio amplifier and loading the battery in response to low battery output voltage.

Hoover teaches an amplifier protecting system which comprises a cut off circuit or a method for sensing a low battery voltage (7, col. 3, lines 30-50 and col. 4, lines 4-24), wherein the voltage sensor (7) monitors the dropping voltage (ground fault) and substantially disabling

Art Unit: 2643

the amplifier (col. 4, lines 13-14) and loading the battery (the crowbar circuit 9) in response to low battery output voltage (also see col. 3, lines 41-50).

Since Killion and Hoover teaches the circuit for disabling the amplifier in response to the voltage sensor output; it therefore would have been obvious to one skilled in the art to provide the method for sensing a low battery voltage, substantially disabling the audio amplifier and load the battery in response to the low battery output voltage, or provide the cutoff circuit and the crowbar circuit, as taught by Hoover, in the Killion device for better protecting the audio amplifier system.

Regarding claims 3 and 9, Killion in view of Hoover do not specifically teach the voltage sensor and the current source as claimed. However, Killion and Hoover does not restrict to the range of the voltage sensor or the current source that draws from the power supply or battery as claimed in claims 3 and 9.

Therefore, it would have been obvious to one skilled in the art to provide any range for the voltage sensor and the current source in the device of Killion in view of Hoover for greater application depending on the desired loading for efficiently drawing the output voltage from battery and depending on the desired frequency characteristics.

Regarding claims 4-5, Killion in view of Hoover do not specifically teach the voltage sensor as claimed. However, it is very well known in the art to provide a voltage divider comprising a resistor in series with at least one diode for the voltage sensor.

Therefore, it would have been obvious to one skilled in the art to provide any type of voltage sensor in the device of Killion in view of Hoover such as the voltage sensor which

Art Unit: 2643

comprises a voltage divider having a resistor in series with at least one diode for greater flexibility.

Regarding claims 11 and 15, Hoover shows a resistor (49). Hoover does not specifically teach the resistance as claimed. However, Hoover does not restrict to any range of the resistance.

Therefore, it would have been obvious to one skilled in the art to provide any range of the resistance in the device of Killion in view of Hoover such as the range of 1,000 to 10,000 Ohms depending on the desired loading for efficiently drawing the output voltage from battery.

#### ***Allowable Subject Matter***

4. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-5 and 7-15 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (703) 305-4844. The examiner can normally be reached on 9:30AM-6:00PM.

Art Unit: 2643

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HL  
April 18, 2004



HUYEN LE  
PRIMARY EXAMINER